

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1061457

Luminaire Tested: S125RDRP-S1090D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061457  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-83)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S1090D840-X4F0-XX-UDD-SVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

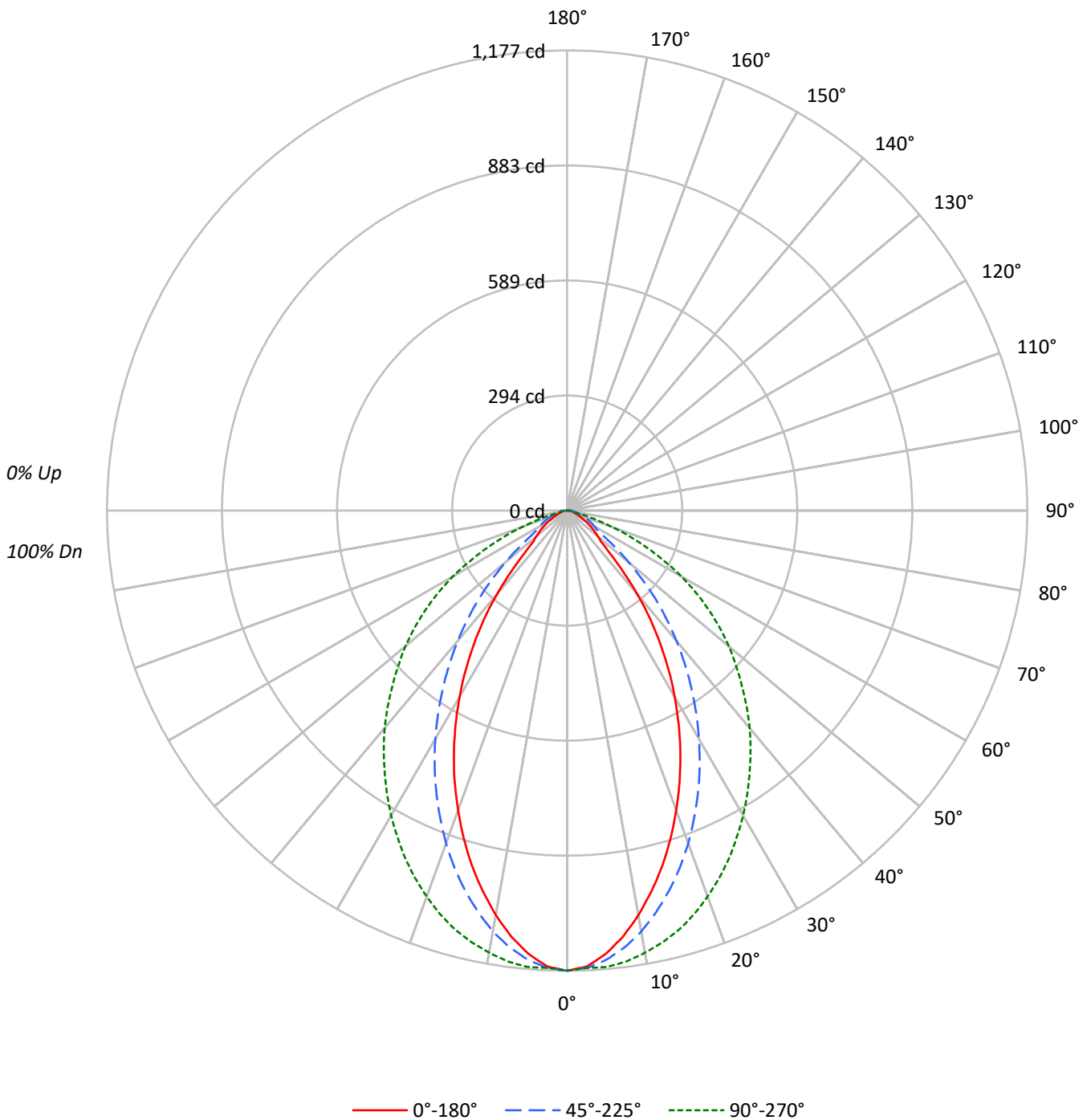
Lumens per Lamp: N/A  
Luminaire Lumens: 1704.7 lumens  
Efficiency: N/A  
Efficacy: 48.7 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.15 / 1.02  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	101	109	105	103	100	101	99	97	98	96	94	94	92	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	66	62	58	56
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	40	39
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	46	41	37	36

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8103	8103	8103
5°	7866	7970	8100
10°	7345	7642	8027
15°	6704	7177	7907
20°	5975	6635	7698
25°	5207	6024	7449
30°	4375	5359	7159
35°	3480	4657	6844
40°	2507	3912	6531
45°	1486	3105	6150
50°	1099	2211	5787
55°	930	1366	5300
60°	757	1102	4667
65°	591	1018	3688
70°	503	882	2468
75°	466	766	998
80°	496	793	694
85°	592	1185	790

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6150 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.5	6.4
10°-20°	284.9	16.7
20°-30°	372.3	21.8
30°-40°	362.7	21.3
40°-50°	272.1	16.0
50°-60°	170.6	10.0
60°-70°	88.8	5.2
70°-80°	32.1	1.9
80°-90°	12.7	0.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	765.7	44.9
0°-40°	1128.4	66.2
0°-60°	1571.0	92.2
0°-90°	1704.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1704.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1177	1177	1177	1177	1177	
5°	1138	1153	1153	1162	1172	106
15°	940	968	1007	1069	1109	262
25°	685	723	793	900	980	313
35°	414	458	554	702	814	257
45°	153	198	319	493	632	128
55°	78	81	114	298	442	69
65°	36	39	62	120	226	37
75°	18	24	29	30	38	19
85°	8	12	15	14	10	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1176.9	1176.9	1176.9	1176.9	1176.9
2.5°	1166.9	1178.1	1170.6	1170.6	1170.6
5°	1138.1	1153.1	1153.1	1161.9	1171.9
7.5°	1098.1	1115.6	1126.8	1148.1	1163.1
10°	1050.6	1071.8	1093.1	1128.1	1148.1
12.5°	996.8	1021.8	1051.8	1100.6	1130.6
15°	940.5	968.0	1006.8	1069.3	1109.3
17.5°	879.2	911.7	958.0	1033.0	1081.8
20°	815.4	847.9	905.5	990.5	1050.6
22.5°	751.6	786.7	849.2	945.5	1016.8
25°	685.4	722.9	792.9	900.5	980.5
27.5°	617.8	656.6	734.1	854.2	940.5
30°	550.3	590.3	674.1	804.2	900.5
32.5°	482.8	525.3	614.1	752.9	858.0
35°	414.0	457.7	554.0	701.6	814.2
37.5°	347.7	391.5	494.0	649.1	770.4
40°	278.9	326.4	435.2	596.6	726.6
42.5°	211.4	260.1	376.4	544.0	679.1
45°	152.6	197.6	318.9	492.8	631.6
47.5°	117.6	142.6	260.1	440.2	585.3
50°	102.6	110.1	206.4	391.5	540.3
52.5°	88.8	93.8	155.1	346.4	491.5
55°	77.5	81.3	113.8	297.7	441.5
57.5°	65.0	70.0	90.0	250.1	390.2
60°	55.0	57.5	80.0	206.4	338.9
62.5°	45.0	47.5	71.3	162.6	281.4
65°	36.3	38.8	62.5	120.1	226.4
67.5°	30.0	31.3	52.5	85.0	173.8
70°	25.0	26.3	43.8	58.8	122.6
72.5°	21.3	25.0	35.0	42.5	77.5
75°	17.5	23.8	28.8	30.0	37.5
77.5°	15.0	22.5	23.8	23.8	21.3
80°	12.5	18.8	20.0	18.8	17.5
82.5°	10.0	15.0	16.3	16.3	13.8
85°	7.5	12.5	15.0	13.8	10.0
87.5°	5.0	11.3	12.5	11.3	7.5
90°	0.0	0.0	0.0	0.0	0.0

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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	7.18	8.54	7.55	8.85	9.16	16.80	18.15	17.16	18.46	18.78
	3H	8.04	9.24	8.42	9.57	9.94	17.64	18.84	18.02	19.17	19.53
	4H	8.47	9.59	8.87	9.94	10.32	17.71	18.83	18.12	19.18	19.57
	6H	8.90	9.92	9.31	10.29	10.69	17.70	18.73	18.11	19.10	19.49
	8H	9.07	10.05	9.50	10.44	10.84	17.68	18.66	18.11	19.05	19.46
	12H	9.24	10.17	9.67	10.55	10.98	17.67	18.61	18.11	18.99	19.42
4H	2H	8.15	9.27	8.55	9.62	10.00	16.66	17.78	17.06	18.13	18.51
	3H	9.20	10.12	9.61	10.52	10.92	17.57	18.49	17.99	18.89	19.30
	4H	9.76	10.58	10.20	11.00	11.45	17.67	18.49	18.11	18.91	19.36
	6H	10.36	11.07	10.83	11.52	11.98	17.70	18.41	18.16	18.86	19.32
	8H	10.60	11.26	11.07	11.71	12.18	17.70	18.36	18.17	18.81	19.28
	12H	10.83	11.41	11.31	11.90	12.37	17.72	18.30	18.20	18.78	19.26
8H	4H	10.24	10.90	10.70	11.34	11.81	17.60	18.26	18.07	18.71	19.18
	6H	11.05	11.59	11.55	12.09	12.57	17.65	18.20	18.16	18.69	19.17
	8H	11.43	11.92	11.95	12.43	12.92	17.69	18.17	18.21	18.69	19.18
	12H	11.82	12.25	12.34	12.75	13.32	17.75	18.18	18.27	18.68	19.25
12H	4H	10.29	10.87	10.77	11.36	11.83	17.57	18.15	18.05	18.63	19.11
	6H	11.17	11.66	11.69	12.17	12.67	17.62	18.11	18.14	18.62	19.11
	8H	11.66	12.09	12.18	12.59	13.16	17.69	18.12	18.21	18.62	19.19